

**RECEIVED
CENTRAL FAX CENTER**

APR 30 2008

PATENT
P56894

IN THE CLAIMS

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

Please add new claim 17.

1. (Original) An apparatus , comprising:

2 a converting unit receiving a voice signal and performing at least one selected from
3 among analog to digital conversion and digital to analog conversion on the voice signal;

4 a first processor receiving the voice signal from said converting unit, storing a plurality of
5 procedures, the procedures conforming to predetermined standards of a plurality of voice
6 communication modes, the plurality of voice communication modes including a selected mode,
7 said first processor performing the stored procedure corresponding to the selected mode to cause
8 the voice signal to comply with the predetermined standard corresponding to the selected mode,
9 the selected mode being a mode selected from at least a voice over Internet protocol mode, a
10 voice over digital subscriber line mode, and a voice, over multi-service broadband networks
11 mode;

12 a digital tone generating unit storing a plurality of sources of tones for phone functions,
13 storing tones corresponding to the plurality of voice communication modes, generating at least
14 one tone corresponding to the selected mode;

PATENT
P56894

15 a multiplexer receiving and multiplexing the at least one tone from said digital tone
16 generating unit and the processed voice signal from said first processor, and outputting the
17 multiplexed signal to said converting unit;

18 a second processor confirming the selected mode and outputting information identifying
19 the confirmed selected mode to said digital tone generating unit and to said first processor;

20 a relay switch receiving an off signal from said second processor and interrupting a
21 central office phone line when a predetermined code is selected, the predetermined code
22 corresponding to the voice communication modes including digital network services, and
23 maintaining an on state when a general central office phone digit is selected;

24 a third processor being in communication with said second processor, supporting
25 communication during transmission of asymmetric digital subscriber line data, said third
26 processor removing generated noise; and

27 an analog front end being in communication with said third processor, supporting
28 matching of an asymmetric digital subscriber line, and enabling bi-directional dual
29 communication of the asymmetric digital subscriber line data.

1 2. (Original) The apparatus of claim 1, with said first processor setting a default mode to
2 be one mode from among the plurality of voice communication modes.

1 3. (Original) The apparatus of claim 2, with the default mode being determined in
2 dependence upon a call type most commonly used.

PATENT
P56894

1 4. (Original) The apparatus of claim 1, said first processor corresponding to a voice
2 digital signal processor, said third processor corresponding to an asymmetric digital subscriber
3 line digital signal processor, the apparatus corresponding to a composite voice service terminal.

1 5. (Original) A method, comprising:
2 performing an operation for hook-on;
3 detecting at least a first selected digit;
4 when the first selected digit corresponds to a general central office phone number,
5 performing a general telephone call through a general telephone line;
6 when the first selected digit corresponds to a predetermined code, switching a relay on
7 the general phone line, the predetermined code corresponding to digital network services;
8 when said switching is performed, detecting a second selected digit selected after the first
9 selected digit, the second selected digit corresponding to selected digital network services
10 selected from among a plurality of digital network services, the plurality of digital network
11 services including at least a voice over Internet protocol service, a voice over digital subscriber
12 line service, and a voice over multi-service broadband networks service;
13 when the second selected digit corresponds to the voice over Internet protocol service,
14 loading voice over Internet protocol firmware and making a voice over Internet protocol call;

PATENT
P56894

15 when the second selected digit corresponds to the voice over digital subscriber line
16 service, loading voice over digital subscriber line firmware and making a voice over digital
17 subscriber line call; and

18 when the second selected digit corresponds to the voice over multi-service broadband
19 networks service, loading voice over multi-service broadband networks firmware and making a
20 voice over multi-service broadband networks call.

1 6. (Original) The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over Internet protocol service,
3 outputting a voice over Internet protocol tone from a digital tone generating unit to a
4 corresponding user side channel through a multiplexer, said outputting confirming the selected
5 digital network services.

1 7. (Original) The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over digital subscriber line
3 service, outputting a voice over digital subscriber line tone from a digital tone generating unit to
4 a corresponding user side channel through a multiplexer, said outputting confirming the selected
5 digital network services.

PATENT
P56894

1 8. (Original) The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over multi-service broadband
3 networks service, outputting a voice over multi-service broadband networks tone from a digital
4 tone generating unit to a corresponding user side channel through a multiplexer, said outputting
5 confirming the selected digital network services.

1 9. (Original) The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over Internet protocol service,
3 setting a voice digital signal processor and a second processor to a voice over Internet protocol
4 mode and restarting the voice digital signal processor and the second processor.

1 10. (Original) The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over digital subscriber line
3 service, setting a voice digital signal processor and a second processor to a voice over digital
4 subscriber line mode and restarting the voice digital signal processor and the second processor.

1 11. (Original) The method of claim 5, further comprising:

2 when the second selected digit corresponds to the voice over multi-service broadband
3 networks service, setting a voice digital signal processor and a second processor to a voice over
4 multi-service broadband networks mode and restarting the voice digital signal processor and the
5 second processor.

PATENT
P56894

1 12. (Original) An apparatus, comprising:

2 a converting unit receiving a voice signal and performing at least one selected from
3 among analog to digital conversion and digital to analog conversion on the voice signal;

4 a first processor receiving a voice signal from said converting unit when digital network
5 services are selected, said first processor storing a plurality of procedures according to
6 predetermined standards of a plurality of voice communication modes, the plurality of voice
7 communication modes including a selected mode, said first processor performing the stored
8 procedure corresponding to the selected mode causing the voice signal to comply with the
9 predetermined standard corresponding to the selected mode when the digital network services are
10 selected;

11 a digital tone generating unit generating at least one tone corresponding to the selected
12 mode and outputting the at least one tone to said converting unit;

13 a second processor confirming the selected mode and outputting information identifying
14 the confirmed selected mode to said digital tone generating unit and to said first processor;

15 a relay receiving an off signal from said second processor and turning off to interrupt a
16 central office phone line when a predetermined code is selected, the predetermined code
17 corresponding to the voice communication modes including digital network services, and
18 maintaining an on state when at least one general central office phone digit is selected, the
19 predetermined code being distinguishable from the at least one general central office phone digit;

PATENT
P56894

20 a third processor being in communication with said second processor, supporting
21 communication during transmission of asymmetric digital subscriber line data, said third
22 processor removing generated noise; and

23 an analog front end being in communication with said third processor, supporting
24 matching of an asymmetric digital subscriber line, and enabling bi-directional dual
25 communication of the asymmetric digital subscriber line data.

1 13. (Original) The apparatus of claim 12, further comprising:

2 a multiplexer receiving and multiplexing the at least one tone from said digital tone
3 generating unit and the processed voice signal from said first processor, the selected mode being
4 a mode selected from a voice over Internet protocol mode, a voice over digital subscriber line
5 mode, a voice over multi-service broadband networks mode.

1 14. (Original) The apparatus of claim 12, with said first processor setting a default mode
2 to be one mode from among the plurality of voice communication modes.

1 15. (Original) The apparatus of claim 14, with the default mode being determined in
2 dependence upon a call type most commonly used.

PATENT
P56894

1 16. (Original) The apparatus of claim 12, said first processor corresponding to a voice
2 digital signal processor, said third processor corresponding to an asymmetric digital subscriber
3 line digital signal processor, the apparatus corresponding to a composite voice service terminal.

1 17. (New) An apparatus for communication in a public switched telephone network
2 mode, a voice over Internet protocol mode, a voice over digital subscriber line mode, and a voice
3 over multi-service broadband networks mode , comprising:

4 a converting unit receiving a voice signal and performing at least one selected from
5 among analog to digital conversion and digital to analog conversion on the voice signal;

6 a first processor receiving the voice signal from said converting unit, storing a plurality of
7 procedures, the procedures conforming to predetermined standards of a plurality of voice
8 communication modes, the plurality of voice communication modes including a selected mode,
9 said first processor performing the stored procedure corresponding to the selected mode to cause
10 the voice signal to comply with the predetermined standard corresponding to the selected mode,
11 the selected mode being a mode selected from at least a voice over Internet protocol mode, a
12 voice over digital subscriber line mode, and a voice over multi-service broadband networks
13 mode;

14 a digital tone generating unit storing a plurality of sources of tones for phone functions,
15 storing tones corresponding to the plurality of voice communication modes, generating at least
16 one tone corresponding to the selected mode;

PATENT
P56894

17 a multiplexer receiving and multiplexing the at least one tone from said digital tone
18 generating unit and the processed voice signal from said first processor, and outputting the
19 multiplexed signal to said converting unit;

20 a second processor confirming the selected mode and outputting information identifying
21 the confirmed selected mode to said digital tone generating unit and to said first processor;

22 a relay switch receiving an off signal from said second processor and interrupting a
23 central office phone line when a predetermined code is selected, the predetermined code
24 corresponding to the voice communication modes including digital network services, and
25 maintaining an on state when a general central office phone digit is selected;

26 a third processor being in communication with said second processor, supporting
27 communication during transmission of asymmetric digital subscriber line data, said third
28 processor removing generated noise; and

29 an analog front end being in communication with said third processor, supporting
30 matching of an asymmetric digital subscriber line, and enabling bi-directional dual
31 communication of the asymmetric digital subscriber line data,

32 wherein said apparatus is able to communicate with all of the public switched telephone
33 network mode, the voice over Internet protocol mode, the voice over digital subscriber line mode
34 and the voice over multi-service broadband networks mode.